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|  | **2010** |
|  | 6th Grade Science  Bryan Winterhalter |

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| **[Phases of the moon Lesson Plan]** |
| Integrating Technology and the Phases of the Moon |

**Description / Overview of Lesson**

In this lesson, students will demonstrate their knowledge about the phases of the moon, and technology by creating a brief podcast type video. Their video must include examples of the phases of the moon, why they look that way, ways of remembering the names, how long each phase lasts, and use actual photos of the moon. The students will need to incorporate models, or diagrams into their video as well as a video clip of the moon going through its phases. These short videos will be presented to the class.

**List of Resources**:

Although students are not limited to the following pages, below are a few websites that will get the students started in the right direction

Lunar Cycle Challenge (Game) <http://www.sciencenetlinks.com/interactives/moon/moon_challenge/moon_challenge.html>

Photos of the moon’s surface <http://spaceplace.nasa.gov/en/educators/teachers_moon_images.shtml>

GoogleEarth [www.earth.**google**.com/**moon**](http://www.earth.google.com/moon)

Google Moon <http://www.google.com/moon/>

Video to watch <http://www.youtube.com/watch?v=WD-H1xqoAAg&feature=fvw>

Example video?

Moon Phase Rap <http://www.youtube.com/watch?v=AQRNzepe4wI>

Moon Phase Rap 2 <http://www.youtube.com/watch?v=sXK63GpwUqs>

Moon Phases1 <http://www.youtube.com/watch?v=2aFGNGEcDOk>

Moon Phases 2 <http://www.youtube.com/watch?v=YdI1aDjWLlY>

Moon Phases 3 <http://www.youtube.com/watch?v=0vXWXqGmPCk>

Moon Phases 4 <http://www.youtube.com/watch?v=c5WCxJ_1LME>

Moon Phase 5 <http://www.youtube.com/watch?v=QPYZXepf88I>

Cool footage <http://www.youtube.com/watch?v=-HgHEO0DUig>

**List of Standards Addressed**

NETS-S # 1a, 1b, 1c, 2a, 5a, 5b, 5c, 5d, 6a, 6d

**School / District Goals Addressed**

Cherry Creek Schools / State Standard Content Learning = #6 / 4.14a

**Student Learning Objectives**

By the completion of this task, each student will be able to:

* State the phases of the moon in order
* Explain why each phase looks the way it does
* State how long each phase lasts
* Can identify the moon phase by sight or description

**Learning Activities – Lesson Plan Steps**

Long term: Each student will create a lunar calendar and draw what the moon looks like each night over the course of 1 month. After the completion of this lesson, students will go back to their calendar and label each of the phases.

Day 1 Intro:- Show Standard Deviants video clip on lunar cycles.

Day 2 Explain to the class that they will need to create a podcast video, 4-6 min long explaining the phases of the moon. Then the class will go to the computer lab and looks at the websites listed above. (YouTube override will need to be given)

Day 3 Go back to the computer lab. Students will be allowed to do research on the moon and begin to outline their podcast

Day 4 Students create a script for their podcast

Day 5 Check out the mobile lab and allow students to use webcams to begin recording their podcasts.

Day 6 Work day on podcasts, final editing

Day 7 Present to class.

**Assessment / Evaluation**

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| Teacher Name: **Bryan Winterhalter** | |  |  |  |
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| Student Name:     \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | |  |
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| CATEGORY | 4 | 3 | 2 | 1 |
| Knowledge | All students showed excellent knowledge of content, needing no cues and showing no hesitation in talking or answering questions. | All students showed excellent knowledge of content, but 1-2 students once needed note cards to talk or answer questions. | Most students showed excellent knowledge of content, but 1-2 often needed note cards to talk or answer questions. | Most students needed note cards to talk and to answer questions. |
| Costume & Props | All students wore costumes and the group used some props. | Some students wore costumes and the group used some props. | Students wore no costumes, but the group used some props. | No costumes and no props were used. |
| Videography -Clarity | Video did not rock/shake and the focus was excellent throughout. | Video did not rock/shake and the focus was excellent for the majority of the video. | Video had a little rocking/shaking, but the focus was excellent throughout . | Problems with rocking/shaking AND focus. |
| Videography-Interest | Many different "takes", camera angles, sound effects, and/or careful of use of zoom provided variety in the video. | Several (3-4) different "takes", camera angles, sound effects, and/or careful of use of zoom provided variety in the video. | One or two different "takes", camera angles, sound effects, and/or careful of use of zoom provided variety in the video. | Little attempt was made to provide variety in the video. |
| Length of Video | Video was 4-6 minutes long. | Video was 3-5 or 7-8 minutes long. | Video was less than 2 minutes long. | Video was less than 2 or more than 9 minutes long. |
| Interest and Purpose | Video has a clear and interesting purpose. | Video is interesting but purpose is somewhat unclear. | Video is not very interesting and purpose is somewhat unclear. | Video is not interesting and has no discernable purpose. |
| Titles and Credits | All titles and credits are accurate, legible and draw the viewer's attention. | Most titles and credits are accurate, legible and draw the viewer's attention. | Some titles and credits are accurate, legible and draw the viewer's attention. | Few (less than 75%) titles and credits are accurate, legible and draw the viewer's attention. |

Adaptations for special needs students and Extensions for Advanced students

For my special needs students, they will be working with a group, and as long as they are actively participating, then they will receive credit. For the advanced students, I will have them also explain why solar and lunar eclipses occur as well as have them create more digital effects into their presentation.